

What is claimed is

1. An antenna assembly for a telecommunication apparatus, comprising :
- a conductive element defining a planar antenna; and
- 5 a flexible member arranged to carry the conductive element.
2. An antenna assembly as claimed in claim 1 wherein the conductive element is embedded in the flexible member.
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- sub 91 / 10 3. An antenna assembly as claimed in claim 1 or 2 wherein the flexible member is generally flat and planar.
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- sub 92 / 15 4. An antenna as claimed in any one of the preceding claims wherein the conductive element is disposed on a central bend axis of the flexible member.
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- sub 93 / 5. An antenna assembly as claimed in any one of the preceding claims wherein the conductive element is disposed on a substrate.
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- 20 6. An antenna assembly as claimed in 5 wherein the substrate material comprises an aperture.
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7. An antenna assembly as claimed in claim 5 wherein the conductive element is disposed between the substrate and a second substrate material.
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- sub 94 / 25 8. An antenna assembly as claimed in any one of the preceding claims wherein the flexible member is biased towards a generally planar equilibrium.
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- sub 95 / 30 9. An antenna assembly as claimed in any one of the preceding claims wherein the assembly further comprises a relatively rigid base portion for connecting the assembly to the telecommunication apparatus.
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a₆ 10. An antenna assembly as claimed in claims 1 to 4 wherein the conductive element is a pre-formed wire.

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a₇ 5 11. An antenna assembly as claimed in claims 1 to 4 wherein the conductive element is a stamped out pattern from a planar sheet.

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a₈ 10 12. An antenna assembly as claimed in claim 10 or 11 wherein the conductive element is stainless steel or spring steel.

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a₉ 13. An antenna assembly as claimed in claims 5 to 9 wherein the conductive element is disposed on the substrate by a process of etching.

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a₁₀ 15 14. An antenna assembly as claimed in claims 5 to 9 wherein the conductive element is disposed on the substrate by a process of printing using conductive ink.

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a₁₁ 20 15. An antenna assembly as claimed in claims 5 to 9 wherein the substrate is polyester.

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a₁₂ 16. An antenna assembly as claimed in claims 5 to 9 wherein the substrate is polyamide.

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a₁₃ 25 17. An antenna assembly as claimed in any one of the preceding claims wherein the flexible member is a thermo plastic elastomer.

18. An antenna assembly as claimed in claim 9 wherein the rigid base portion is 10 –15 % glass filled polypropylene.

30 19. An antenna assembly for a communication device comprising :

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a flexible member carrying a conductive track in a generally planar equilibrium configuration.

5 20. A method of producing an antenna assembly comprising the step of:

encapsulating a planar antenna element within a flexible member.

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21. A method as claimed in claim 20 further comprising the step of :

arranging the antenna element to be disposed on a substrate.

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a₁₄ 22. A method as claimed in claim 20 or 21 wherein the encapsulation is achieved by means of an injection moulding process.

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a₁₅ 23. A method as claimed in 21 or 22 wherein the flexible member is produced by moulding operations performed on opposing sides of the substrate.

20 24. A method as claimed in claim 23 wherein the moulding on each side extends beyond the outer edge of the substrate.

a 25. An antenna assembly as herein described , with particular reference to the drawings.

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a 26. A method of producing an antenna assembly as herein described, with particular reference to Figures 4 to 6 of the drawings.

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